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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,823

09/30/2003

C. Brian Atkins

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02/07/2008

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

AUGUSTINE, NICHOLAS

ART UNIT

PAPER NUMBER

2179

NOTIFICATION DATE

DELIVERY MODE

02/07/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/675,823

Applicant(s)

ATKINS, C. BRIAN

Examiner

Nicholas Augustine

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

- A. This action is in response to the following communications: Request for Continued Examination filed: 11/01/2007. This action is made **Final**.
- B. Claims 1-21 remains pending.

Continued Examination Under 37 CFR 1.114

C. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/01/2007 has been entered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Geigel et al (US 20020122067 A1).

As for independent claims 1, 8 and 15, Geigel teaches methods for arranging a set of objects within an area (par.57), comprising:

- Initiating a first current binary tree comprising a leaf node (par.89) associating a first object selected from the set with the leaf node (par.69, last line and lines 1-5);
- Establishing candidate binary trees, wherein each of the candidate binary trees comprises the current binary tree and a respective leaf node associated with another object selected from the set, and locations of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area (par.57-60, 64, 69-70 and 97; fig.3, 8-9);
- Computing a respective score for each of the candidate binary trees selecting one of the candidate binary trees as the current binary tree based on the computed score (par.77 and 145-150);
- Repeating the establishing, the computing, and the selecting until the current binary tree includes all the objects in the set (par.64 and 77; a plurality of images to be placed in a file explains the repeated step nature of b-d repeated until done);

- After the repeating, arranging the objects within the area in accordance with the locations of the leaf nodes within the candidate binary tree (fig.3, 4, 9 and par.77-79).

As for dependent claims 2-7,9-14 and 16-21, Geigel teaches the methods of claims 1,8 and 15, wherein the binary tree comprises:

- Claims 2,9 and 16
- At least one interior node (fig.3; wherein depicted are nodes inside and outside);
- And at least one leaf node emanating from the interior node (fig.3; wherein depicted as shown item 88 as interior node that has emanating a leaf);
- Wherein each subtree of the current binary tree comprises a respective position within the binary tree and all interior nodes and leaf nodes emanating from the respective position (fig.3, 4,8);
- And wherein each subtree of each of the candidate binary tree comprises a respective location (x/y spot on page) within the candidate binary tree and all interior nodes and leaf nodes emanating from the respective location (fig.3, 4,8).
- Claims 3,10 and 17
- Removing a subtree of the current binary tree associated with a selected position (fig.3, 4);

- Inserting a new interior node into the current binary tree at the selected position (fig.3-6);
- Associating either a horizontal or a vertical partition (cut) of the area with the new interior node (par.57, lines 5-9);
- Inserting into the binary tree a new leaf node emanating from the new interior node (fig.3 and 9);
- Associating the new leaf node with the other object selected from the set (fig.8, 9);
- Inserting the previously removed subtree back into the binary tree at the new interior node (fig.4 and corresponding text).
- Claims 4,11 and 18
- A leaf node in the current binary tree (figure 8);
- An interior node in the current binary tree (88);
- Claims 5,12 and 19
- For each of the interior nodes in the candidate binary tree, characterizing a respective bounding box for the objects included in the subtree rooted in the interior node (fig.35, par.57, lines 2-13);
- For each of the objects, allocating a respective region of the area in accordance with the respective bounding box for each object (fig.35, par.59, lines 1-4 and par.70, lines 1-5).
- Claims 6,13 and 20

- Determining respective fractions of the areas occupied by the objects in each of the candidate binary trees (par.58, lines 2-9),
- The selecting comprises selecting as the candidate binary tree having a greatest one of the fractions of the area occupied by the objects in the candidate binary tree (par.71, lines 1-8 and par.86, lines 11-17)).
- Claims 7, 14 and 21
- The computing comprises assessing minimum and maximum object size values for all the objects in the area (par.90, lines 1-5 and par.91, lines 2-7).
- The selecting comprises selecting as the current binary tree the candidate binary tree having a greatest respective ratio of minimum area object size value divided by maximum area object size value (par.110, lines 5-12).

(Note :) It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006,1009, 158 USPQ 275, 277 (CCPA 1968)).

Response to Arguments

Applicant's arguments filed 11/21/2007 have been fully considered but they are not persuasive.

After careful review of the amended claims (given the broadest interpretation) and the remarks provided by the Applicant along with the cited reference(s) the Examiner does not agree with the Applicant for at least the reasons provided below:

A1. The Applicant argues that Geigel does not disclose establishing candidate binary trees in which the "location of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area".

R1. The Examiner does not agree. With the broadest interpretation of the current claim language and not reading into the specification as the Applicant implies the Examiner believes that Geigel does in fact teach that the location of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area. For example please look at figure 9 and of course corresponding text relating to figure 9 (par.89). Geigel makes it clear of the structure of the binary tree and where the images are stored at in figure 8; in addition Geigel explains displaying the images and the output of the images in the end result in figure 9. As explained and depicted items 174, 176, and 178 are subgroups of a page 172 each of the subgroups contain two images 182, 184 and 186 when processed through the system the end result is that of 172 (PAGE 2) depicted in figure 9. The Examiner poses this scenario which is completely within the scope of Geigel that if one of the leaf nodes of 186 was the child of subgroup 174 (keeping in mind that 174 is an event an grouping of events along with image analysis of the details of the image determines the location of the picture) and one of the leaf nodes of 182 was the child of subgroup 178 then the position (location) of the images from one of the nodes from 182 and 186 will be in different locations then what is depicted in figure 9 (PAGE 2), thus leading to the undeniable fact that Geigel fully supports establishing candidate binary trees in which the "location of the leaf nodes within each of the candidate binary trees correspond to

relative positions of the associated objects within the area. Note paragraphs 59-60, 64, 89 and 97 for further support of the ideas expressed above. For instance note that an Event is a page, a sub event is a subgroup or pages and an event image is an image in a subgroup. In paragraph 97 Geigel points out "an image belonging to a sub event is grouped on the same page". The placement of a leaf node in a tree that was established (created by the system for purposes of data organization) clearly indicates the effectiveness of the end result in such that an images location on a page in an album can be solely determined by the placement of the leaf node inside of the binary tree.

A2. The Applicant argues that Geigel does not disclose the repeating element of claim 1.

R2. The Examiner does not agree. The repeating element of claim 1 is as follows: "repeating the establishing, the computing, and the selecting until the current binary tree includes all the objects in the set." Geigel describes his system as being able to process a set of images one at a time and not all at once hence "repeating" the process of establishing, computing and selecting. In paragraph 77 Geigel gives a summary of the overall architecture of the page layout system 124 in such that collection of images are inputted into the system and the system arranges these images in a fashionable manner that the user deems useful. This is done by computing the images by setting emphasis values on images so that images can be grouped and displayed together in the end result. The data structure choice to store the end result is

a binary tree as depicted in figure 8 and the end result is depicted in at least figure 9 in such that once the system has processed the images and has established the tree the tree is then read by a viewer of the page layout system to present the page to the user as the user would deem useable means user preferences and the total over all processes from the page layout system. Thus the Examiner believes that Geigel does in fact teach repeating the establishing, the computing, and the selecting until the current binary tree includes all the objects in the set for at least the reasons stated above in R1 and R2 of this response.

Conclusion

This is a continuation of applicant's earlier Application No.10/675,823. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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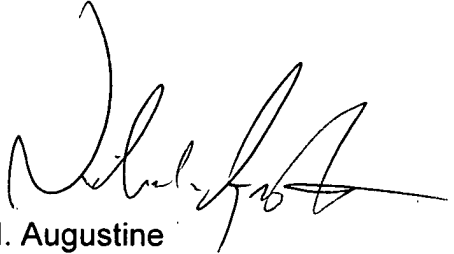
the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Augustine whose telephone number is 571-270-1056. The examiner can normally be reached on Monday - Friday: 7:30- 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


N. Augustine
January 24, 2008

Nicholas Augustine
Examiner
AU: 2179


BA HUYNH
PRIMARY EXAMINER